

# MODEL SSA-424 DUAL DIGITAL HYBRID

MATRIX / CONFERENCE LINE INTERCOM SYSTEMS

**RTS™**



## GENERAL DESCRIPTION

The SSA-424 Dual Digital Hybrid interfaces two 2-wire intercom lines to two 4-wire lines. Unlike earlier analog hybrids, the SSA-424 features advanced digital signal processing to achieve automatic nulling of the 2-wire lines. Plus, each hybrid features convenient peak-reading level meters to quickly match the levels between the lines that are being interfaced. The result is easy and accurate setup. With the SSA-424, all need for test tones, nulling adjustments and ducking adjustments have been eliminated.

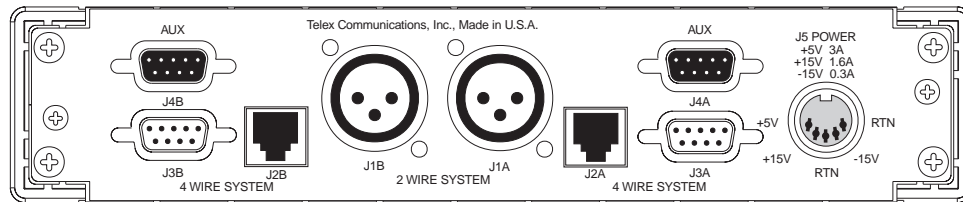
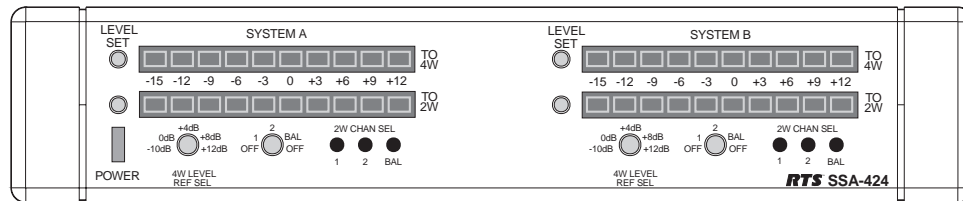
Compatible 2-wire intercom systems include RTS™ TW, Audiocom®, and Clear-Com®. Compatible 4-wire intercom systems include Telex's ADAM™, ADAM CS and Zeus™ Digital Matrix Intercom Systems.

An internal call signal option board is also available for the SSA-424. This option board provides call signal compatibility with any of the 2-wire systems listed above. And, the output can be directly connected to an ADAM or Zeus GPI port. No external circuitry is required.

With features like digital signal processing, peak-reading level meters and optional call signal interfacing, the SSA-424 Dual Digital Hybrid assures ease of setup and maximum transparency between intercom systems.

## FEATURES

- **Two Independent Hybrids:** Interface two separate 2-wire lines to two separate 4-wire lines.
- **Automatic Nulling:** Digital hybrids eliminate all nulling and ducking adjustments. Quick, trouble-free setup. Puts an end to concerns about echo and feedback when interfacing 2-wire lines.
- **Peak Reading Level Meters:** Quick and accurate visual level adjustment. No extra setup equipment or guesswork is required.
- **Direct ADAM / Zeus Audio Connection:** Accepts standard ADAM / Zeus DB9 or RJ11 keypanel cables.
- **Transformer Isolated:** All audio inputs and outputs are transformer isolated to prevent ground loops and hum.
- **Call Signal Option:** Accepts call signal formats from all compatible 2-wire systems. For 4-wire systems, generates NC and NO relay contacts and also +5VDC for received 2-wire calls. Accepts a contact closure from the 4-wire system for 2-wire call signal generation. Can be direct-wired to an ADAM or Zeus GPI.
- **Half-rack Wide, 1RU High:** Two SSA-424's fit into a single rack space. Compatible with RTS TW rack mount hardware. Can be mixed with other TW equipment.
- **Universal Power Pack:** Ready for worldwide use. Automatically accepts any mains voltage from 100-250 VAC, 50/60 Hz. Power pack equipped with locking DIN connector for attachment to the SSA-424.



## FRONT AND BACK PANEL DESCRIPTIONS

### Front Panel

There is a power on/off indicator at the left of the front panel. This indicator also provides a flashing signal for received calls from either 2-wire system. The remainder of the front panel is divided into controls and indicators for the two separate hybrids, labeled SYSTEM A and SYSTEM B. For each hybrid, there is a 10-segment, peak-reading level meter to display the 4-wire output level (TO 4W). There is a recessed level set control to the left of the 4-wire meter (LEVEL SET) and there is also a recessed, 5-position range select control for the 4-wire output (4W LEVEL REF SEL). Under the 4-wire meter, is an identical meter for the 2-wire output level, and there is a recessed level set control for the 2-wire output to the left of the meter. Under the 2-wire meter, there is a recessed, 5-position selector for the 2-wire system type (with two off positions) and there are three LED indicators to display the current selection (2W CHAN SEL).

### Back Panel

The power pack connector is located at the right end of the back panel. This is a locking DIN connector. The remainder of the back panel is divided into connectors for the two separate hybrids. Connectors are labeled with "J" numbers followed by "A" or "B" to indicate system A or system B. For each hybrid, there is an AUX connector. This is used with the optional, internally mounted call signal board to provide 4-wire call signal connections. Below the AUX connector, there are both a DB9F connector and an RJ11 connector for 4-wire intercom audio connections. These are directly compatible with standard ADAM / Zeus keypanel cables. Next to the 4-wire connectors, there is a 3-pin female XLR audio connector for connection to the 2-wire intercom system. The pin-out of this connector is determined by the position of the 2W CHAN SEL control on the front panel, which provides compatibility with previously listed 2-wire systems.

## MODEL SSA-424 SPECIFICATIONS

### 2-Wire Ports

Input / Output Impedance: 5,000 ohms, nominal  
Operating Level: -10 dBu to 0 dBu, nominal  
Level Adjustment Range:  $\pm 12$  dB

### 4-Wire Ports

Input Impedance: 10,000 ohms, nominal  
Output Impedance: 200 ohms  
Operating Levels: -10 dBu, 0 dBu, +4 dBu, +8 dBu, +12 dBu

### System to System

Frequency Response: 200 Hz to 5 kHz,  $\pm 3$  dB  
Signal-to-Noise Ratio (Ref 1 kHz, 0 dB @ 2-wire): -70 dB nominal  
Crosstalk: -80 dB nominal

### Environmental

Operating Temperature: -20°C to 50°C  
Storage Temperature: -40°C to 85°C  
Humidity: 0 to 95%, non-condensing

### Power

100 to 250 VAC, 50 / 60 Hz, 18 Watts

### Dimensions

1.72" (44mm) high x 8.19" (208mm) wide x 8.0" (204mm) deep

### Weight

5.0 lbs. (2.3 kg)

### Finish

Thermoplastic front panel, aluminum case, light gray finish

### Approvals

UL, CSA, VDE, CE

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